

TECHNICAL STATEMENT  
IN SUPPORT OF LICENSE RENEWAL  
DTV STATION WISH-TV  
INDIANAPOLIS, INDIANA  
FACILITY ID 39269  
CH 9 22.8 KW-ND 284 m

This technical statement was prepared in support of the license renewal application for digital television (DTV) station WISH-TV at Indianapolis, Indiana. Specifically, the purpose of this technical statement is to provide information demonstrating that the operation of WISH-TV complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.

DTV station WISH-TV is licensed (BLCDT-20090622ABX) to operate on channel 9 (186-192 MHz) with a non-directional (ND) antenna effective radiated power (ERP) of 22.8 kilowatts (kW), an antenna radiation center height above mean sea level (RCMSL) of 535.3 meters, an antenna radiation center height above ground level (RCAGL) of 286 meters, and an antenna height above average terrain (HAAT) of 284 meters. A Dielectric model TW-7B9-R(S), horizontally polarized, non-directional antenna is employed.

The licensed WISH-TV facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level at the base of the tower in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." This Bulletin provide assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields adopted by the Commission in 1996.<sup>1</sup>

The calculated power density at the base of the tower was calculated using the appropriate equation of the Bulletin. Using a "worst-case" vertical plane relative field value of 1.0, a total ERP of 22.8 kW and an antenna center of radiation height above ground level of 286 meters, the calculated power density at two meters above ground level at the base of the tower is 0.0094 milliwatt per square centimeter ( $\text{mW}/\text{cm}^2$ ), or 0.94 percent of the Commission's recommended limit applicable to controlled exposure areas ( $1 \text{ mW}/\text{cm}^2$  for TV channel 9) and 4.7 percent of the Commission's recommended

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<sup>1</sup> See Report and Order in ET Docket 93-62, FCC 96-326, adopted August 1, 1996, 11 FCC Rcd 15123 (1997). See also First Memorandum Opinion and Order, ET Docket 93-62, FCC 96-487, adopted December 23, 1996, 11 FCC Rcd 17512 (1997), and Second Memorandum Opinion and Order and Notice of Proposed Rulemaking, ET Docket 93-62, FCC 97-303, adopted August 25, 1997.

limit applicable to general population/uncontrolled exposure areas (0.2 mW/cm<sup>2</sup> for TV channel 9).

As the power density for WISH-TV's licensed operation does not exceed the 5% threshold for either controlled or general population/uncontrolled exposure areas, it is believed that they are in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

Access to the transmitting site is and will be restricted and appropriately marked with warning signs. Furthermore, a protocol will be in effect to control access to the site. In the event that workers or other authorized personnel enter the restricted area appropriate measures shall be taken to limit RF energy exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

If there are questions concerning the technical portion of this application, please contact the office of the undersigned.



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